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# The Effects of Hurricane Flora on Cuba

Submitted by the  
DIRECTOR OF CENTRAL INTELLIGENCE

Concurred in by the  
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# The Effects of Hurricane Flora on Cuba

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## THE EFFECTS OF HURRICANE FLORA ON CUBA

### CONCLUSIONS

A. Hurricane Flora was the worst that ever hit Cuba. Its most important consequence has been to exacerbate the already serious economic problems of the regime. (*Paras. 1-2, 19, 20*)

B. Cuban agriculture was hardest hit, but transportation and communications also suffered major damage. Industrial and military facilities escaped relatively lightly. Oriente and Camaguey, the two provinces which bore the brunt of the storm, suffered heavy losses of homes and personal property. (*Paras. 4-15*)

C. The regime had hoped that economic improvement would follow this year's harvest. Flora must have substantially diminished these hopes and, because of damage to sugar cane, has also dimmed prospects for 1965. The estimated 1964 sugar harvest will probably be reduced by about 15 percent. Even so, Cuba may still exceed its 1963 foreign exchange earnings if higher sugar prices hold—as now seems likely. Because of the economic costs of reconstruction, economic development will be retarded unless there is an increase in Soviet Bloc assistance. (*Paras. 9, 21, 22*)

D. Cuba's need for greater aid will add to the strains already manifest in Cuban-Soviet relations. We believe the Soviets will not give Castro all the assistance he desires, but that they will continue to provide aid at approximately the current level along with meeting emergency needs. (*Paras. 23-27*)

E. For another few weeks or months, Castro will probably succeed in rallying most Cubans to special efforts and to ac-

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ceptance of unusual hardships. Thereafter, shortages of goods, the continuation of depressed living conditions, and the regime's resort to draconian measures will alienate an increasing part of the citizenry. Even so, unless there is major dissidence within the military establishment, he and the minority wedded to him will probably be able to maintain control. We believe that Castro will not reduce to any significant degree his incitement of subversion in Latin America. (*Paras. 28, 29*)

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## DISCUSSION

### I. THE ECONOMY BEFORE FLORA

1. Flora, the worst hurricane ever to hit Cuba, struck an economy that was already stagnant. Gross national product and personal consumption were less than in 1958, and there was no evidence that significant progress was in sight. Shortages of replacement parts—resulting largely from the US embargo—were a chronic and very serious source of concern to the regime. Shortages of many foodstuffs and almost all other consumer goods remained the most conspicuous feature of the Cuban economy. The distribution system continued to be unreliable and the rationing system was becoming increasingly burdensome.

2. The degree of misdirection and mismanagement by the Castro regime has been extraordinary. Failing in its ill-conceived attempt to transform Cuba quickly into an industrial economy, the regime had begun to re-emphasize agricultural production. It had achieved little or no success in this program, partly because the revolution has induced a large migration of farm workers to other occupations. Many of the small factories recently built with Soviet Bloc assistance produce things at ridiculously high cost (e.g., an antibiotics plant), or in quantities far beyond Cuban needs (e.g., a pick and shovel factory which can produce all of Cuba's requirements in a few weeks). The regime's centralization of economic administration has seriously hampered the decision-making process, partly because it placed too much responsibility in a few hands and partly because the new bureaucracy is largely untrained and inexperienced. Its efforts to increase labor productivity have had little result, and absenteeism, indifference, and scattered sabotage remain serious problems. These might become more severe if Castro decides to apply the work norm program which has been introduced experimentally in a number of enterprises.

3. Before Flora, the regime had been undertaking measures likely to cause further unrest among farmers. Just prior to the hurricane, a new decree nationalized practically all farms larger than 166 acres. This "Second Agrarian Reform Law" will dispossess approximately 8,000 landowners and will add about 4.5 million acres to the 9.4 million already nationalized. It will increase state-owned farm land to some 64 percent of the total, the remainder being held by small private farmers. Castro has stated that the nationalization decree will be his last agrarian reform measure and that the small private farmers will not be bothered. Nevertheless, the regime has indicated in the past that it considers 67 acres as the optimum size for an individual farm, and this must cause foreboding among the approximately 25,000 owners of farms between 67 and 166 acres. Furthermore, Castro has indicated

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that private farmers will be allowed to retain their land only if they utilize it efficiently. Aware that the interpretation of efficiency resides with Castro and the government apparatus, the private farmers also know that arbitrary seizure is possible at any time.

## II. EXTENT OF DAMAGE \*

4. The considerable body of pertinent information from photography, from the regime's own statements, from clandestine reports, and from the limited access of foreign observers, is not enough to provide a complete picture of the damage sustained. In the case of sugar cane, where much damage may result from inundation, it will be weeks or even months before we know the whole story.

5. *Casualties and Disease Problems.* As of 20 October the Cuban regime reported that Flora had caused over 1,100 deaths, almost all in Oriente.

6. The regime estimates that it had to evacuate some 175,000 people from their homes; the public health problem is serious. It is too early to ascertain the effectiveness of the regime's efforts to control the total health threat, but enough medical supplies appear to have been offered and administered to have prevented any immediate danger of the spread of epidemic diseases. Some general increase of communicable disease can be anticipated because of inadequate sanitation, inadequate reserves of medicines for normal use, and the inability of Cuban industry to manufacture anything approaching the needed quantities of medicines, medical equipment, chemicals, and disinfectants.

7. *Basic Food Crops.* The provinces of Oriente and Camaguey are the agricultural heart of Cuba, and the food crops in them received a heavy blow from Flora. The rice crop, a basic component of the Cuban diet, was entering its harvesting period. It is likely that about half the winter rice crop in Oriente and Camaguey was destroyed; this would mean a loss of about 40,000 metric tons of milled rice, i.e., 25 percent of annual production or 12 percent of the island's annual consumption.

8. Beans, Cuba's main staple vegetable, also suffered severe damage from Flora especially in the area around Holguin, one of the hardest hit areas as well as one of the major bean producing centers. The Cuban Government has estimated that 19,000 metric tons—nearly 10

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\* Flora struck and restruck Cuba for five days (5-9 October). Its main impact was on Oriente province and the eastern part of Camaguey. Wind velocity near the storm center exceeded 85 miles per hour and at times reached 120. More than 40 inches of rain fell in parts of Oriente, causing severe floods in several major river valleys.

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percent of total production—of corn may have been lost. Both the banana and orange producing areas were severely hit by the storm; the bulk of these crops has probably been lost.

9. *Sugar.* Together Oriente and Camaguey contain over 50 percent of the sugar cane area in Cuba. Wind and flood damage has been substantial; the extent of the latter will not be fully known for some weeks or months, possibly not until the sugar harvest next spring. On the basis of the present tentative evidence we estimate that the total reduction in the 1964 sugar harvest resulting from cane damage may amount to about 10 percent of the previously estimated crop, or about 400,000 metric tons. Other effects of Flora—on transportation and on the availability of labor, for example—may cause a significant additional shortfall in the amount of sugar available for export in 1964. Thus total losses may range as high as 15 percent. Moreover, much of the cane recently planted for initial harvesting in 1965 was washed out. (A period of approximately 12–18 months is required for cane plantings to reach maturity.) It is unlikely that much of this area can be replanted in time for the 1965 harvest.

10. *Other Crops.* Cuba normally produces enough coffee for its own requirements and almost 90 percent comes from Oriente. The coffee harvest was partially completed when Flora struck. Perhaps 9,000 metric tons or 25 percent of the total crop was destroyed by the storm. It is also likely that much of Cuba's small cacao crop was lost. Oriente accounts for about 50 percent of Cuba's cotton production, and about half of this crop was lost. The loss amounts to about 1,000 metric tons or about 6 percent of Cuba's annual consumption. The only major crop which did not suffer significant damage was tobacco; it is grown primarily in the western provinces.

11. *Livestock.* Oriente and Camaguey also contain about half Cuba's cattle population. The number drowned in the floods caused by Flora was probably less than one percent of the total on the island. Losses among other livestock such as swine and poultry were almost certainly much higher. If adequate measures are not taken to prevent the spread of livestock diseases or if sufficient feed grains are not made available, losses will run higher. In any event, the meat shortage is likely to become worse.

12. *Housing and Personal Property.* There has been a heavy loss of homes and personal property in Oriente and Camaguey. Castro has reported that the regime's tabulation for Oriente as of 20 October was over 11,000 houses destroyed and 21,000 damaged. The damage in Camaguey was considerably less.

13. *Transportation and Communications.* Aside from agriculture, the transportation sector of the economy sustained the most serious

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losses. Virtually all of the reported damage to land transportation has been in Oriente. Floods and landslides have rendered many highways and railroads impassable, and segments of them as well as many bridges have been washed out. A number of landlines were knocked out, and the Cuban microwave communications system between Santiago de Cuba and Havana was temporarily inoperable. The transportation system in Eastern Cuba is being restored, although full repair may take a year or more. Temporary structures can be employed in most cases where washouts have occurred. Furthermore, much of the damage was on secondary sections of the highway and railroad systems.

14. *Industry.* Industrial facilities, including electric power plants and power lines, do not appear to have been seriously harmed. A number of facilities, including some sugar mills, did suffer varying degrees of damage from wind and water. Although some replacement parts will be difficult to obtain, we believe that most damage can be repaired without lengthy interruption of operations. Nickel and manganese mining areas were badly damaged by flooding, and some time is required to pump out the mines and to dry and repair the equipment.

15. *Military.* Damage to Cuban military installations and equipment resulted in no more than temporary inconvenience. Communications were cut off, tents, barracks, and storage facilities were damaged or destroyed, and there were some losses of ammunition, light artillery, and electronics gear. No aircraft or naval vessels are known to have been lost, however, and there apparently have been only a few casualties among military personnel. A few Soviet SAM sites and other installations suffered minor damage. Much Cuban military equipment and supplies—food and clothing, vehicles, cranes, bridging equipment, helicopters, naval vessels—and many military personnel have been diverted to hurricane relief and rescue work and will probably be employed in repair and reconstruction operations for some months to come.

### III. ECONOMIC CONSEQUENCES

16. *Emergency Measures.* Over the next few months the Cuban regime will be forced to focus its attention on recovery and reconstruction. Food, medicines, and other supplies will have to be obtained and distributed; damages will have to be repaired; people will have to be fed, clothed, and resettled; crops will have to be harvested; replanting will have to be accomplished. These problems are not insurmountable, but they will divert needed manpower and resources from other productive activity.

17. The regime has undertaken several programs to meet the problems created by Flora; accompanying all of these have been appeals to

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rally to the fatherland in this time of disaster. Farmers have been told to salvage and clear what is left of the ruined crops and then replant, placing special emphasis upon food crops and sugar. "Volunteer" work brigades have been formed to help in the stricken provinces. Throughout the labor force, the work-week and work-day have been extended without any increase in wages. Castro has announced sharp increases in the prices of first-class meat, poultry, beer, and cigars.

18. Rationing quotas on shoes and a few food items have been reduced. For example, the meat ration has been cut by 50 percent even though it was already down to 12 ounces of meat per week and one small chicken per month. For the first time in Cuban history sugar is being rationed. As relief supplies promised by the Communist states and several non-Communist countries arrive in quantity, some of the pressure to conserve foodstuffs and other supplies can be reduced if the regime chooses to do so.

19. *Economic Prognosis.* The most important consequences of Flora have been to exacerbate the already serious economic problems of the Cuban regime. Shortages and tighter rationing will probably continue for at least another year and quite possibly beyond. In its attempts to increase industrial and agricultural productivity, the regime will probably use more coercion: wages may be frozen; work-norms introduced; the longer work-week may be kept in effect; agricultural policy may become steadily tougher.

20. It is clear that the effects of Hurricane Flora were greatest upon the local food supply and the balance of payments problem. While the impact of the storm will hurt, the economy can probably absorb the short-run effects without intolerable strain. To import foods and fibers to replace those lost in the storm would cost about \$35 million. Some of this will be covered by gifts, and the Castro regime still has modest holdings of foreign exchange resulting from high prices for 1963 sugar exports.

21. The regime had hoped to halt the three year decline in agricultural production in 1964 and to achieve a somewhat higher 1964 sugar crop volume. The winds and floods of Flora have demolished these hopes and, because of damage to new cane plantings, have also dimmed prospects for substantially higher volumes in 1965. Prior to Flora it seemed likely that the regime might be able to take advantage of rising world market sugar prices (the spot price was nine cents per pound on 3 October and is now twelve cents) and a probable small increase over its 1963 crop of some 3.8 million metric tons to increase export earnings by perhaps 20 percent or about \$100 million in 1964. Now, the regime will not be able to increase the volume of sugar exports in 1964,

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but it may still exceed 1963 foreign exchange earnings (\$450-500 million) if higher sugar prices hold—as now seems likely.\*

22. Full repair of all damage from the hurricane and full restoration of agricultural production will probably take several years. Domestic consumption will be reduced and foreign exchange will be drawn down to pay for imported foodstuffs, seed grains, and other supplies needed for reconstruction. At the same time, new investment will be restricted during the next year or two by the economic costs of reconstruction, including the diversion—and probable uneconomic use—of skilled manpower, materials, and equipment. Economic development will be retarded unless there is an increase in Soviet Bloc assistance.

#### IV. BLOC AID

23. *Background.* Bloc development credits extended to Cuba since Castro took power have totaled nearly \$500 million, of which perhaps 20 percent has been expended. These credits are important for Cuba's economic future, but of greater immediate importance has been Bloc willingness to supply about 85 percent of Cuban import needs, even though the island's export capability is severely limited. In 1962 the total cost of Bloc economic support to Cuba is estimated to have been about \$340 million. Cuba, however, involves other costs impossible to measure in dollar terms. For example, certain foodstuffs, consumer goods, raw materials, and machinery have been shipped to Cuba even when these items are scarce within the Bloc.

24. There were no announcements of new Soviet aid programs during Castro's long visit to the USSR last spring. In fact, there have been signs of a growing irritation on the part of Soviet and satellite countries over the waste involved in Cuban use of their assistance. There have been press reports that at the recent CEMA conferences the Cubans requested substantial new economic aid and were rebuffed. These reports have not been confirmed, but we believe the Bloc governments are anxious to avoid increased commitments to Cuba.

25. Nevertheless, the Soviet Bloc has responded to Cuban appeals for emergency supplies with substantial shipments of food, medicines, and other vitally needed items, and these are now beginning to reach the stricken areas. The Soviets have also made promises of modest additional aid of a more permanent nature, e.g., building equipment and supplies, machines, and a house prefabricating factory. All of the European Satellites have promised some emergency supplies. Communist China has already sent some \$200,000 worth of medicine and powdered milk plus a cash gift of an equal amount. It has offered other

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\* For a more detailed discussion of the prospects for Cuban sugar exports during 1964, see annex, page 11.

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items including 20,000 tons of rice, 30,000 tons of wheat and corn, and a million pair of rubber shoes. The total magnitude of emergency aid from the Communist countries will be sizable, but it probably will not meet Castro's expectations nor will it be sufficient to meet fully the exigencies caused by Flora.

26. Castro will probably press the Soviet Union for substantial economic aid above and beyond disaster relief and those programs already in being. Disagreement on this issue will add to the strains already manifest in the relationship between the two governments. It would become a particularly abrasive factor if the Soviets tried to use the leverage provided by the urgency of Cuba's needs to attach political conditions to the provision of aid. For example, the Soviets would like Castro to align himself with their policy on the test ban treaty and East-West detente. They would like to have him stop competing with other Latin American Communist leaders and start exercising more caution in his revolutionary incitements. And they would probably like to see their aid program in Cuba placed under closer Soviet supervision.

27. Imposition of such political conditions would be unpalatable to Castro, and we do not think he would consider accepting any of them unless his economic straits had become more desperate than they now appear to be. He might make some temporary concessions of a *pro forma* character in order to acquire quickly some especially needed economic assistance. We believe that, although the Soviets might seek to acquire assurances on certain points, they would be unlikely to press so hard as to threaten a break in their relationship with Cuba. Thus, we conclude that the Soviets will not give Castro all the assistance he desires, but that they probably will continue to provide regular aid at approximately the current level along with emergency assistance.

#### V. POLITICAL CONSEQUENCES

28. The economic problems exacerbated by Flora, and the belt-tightening measures which the regime is imposing upon the population, will almost certainly further erode Castro's personal popularity. For the immediate future (the next two or three months), Castro will probably succeed in rallying most Cubans to special efforts and to acceptance of unusual hardships to meet the hurricane's devastation. As time passes, however, his exhortations will begin to wear thin. Shortages of goods, the continuation of depressed living conditions, and the regime's resort to draconian measures will alienate an increasing part of the citizenry. Even so, unless major dissidence develops within the military establishment, Castro and the minority wedded to him will probably be able to maintain control.

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29. In any event, we believe Castro will not reduce to any significant degree his incitement of subversion in Latin America. He remains first of all a revolutionary, and any increase in internal pressures might even encourage him to intensify agitation. We doubt that he will make any genuine efforts to improve relations with the US; indeed he is likely to make more and more use of the Yankee whipping boy as his difficulties grow within Cuba.

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## ANNEX

### PROSPECTS FOR CUBAN SUGAR EXPORTS DURING 1964

The Cuban sugar crop for 1964 is estimated at 3.5 million tons which would produce an exportable surplus of about 3.0 million tons. It is not yet clear how this surplus will be divided between Bloc and free world markets. Cuba is now negotiating its 1964 trade protocols with the Bloc and the sugar export pattern will not be established until these are signed. On the basis of the history of the past several years, however, it seems likely that Cuba will export about one million tons to the free world during 1964, with the other two million tons going to the Bloc.

### CUBAN SUGAR EXPORTS 1960-1963

	<i>(in thousands of metric tons)</i>			
	1960	1961	1962	1963 (est *)
USSR .....	1,577	3,303	2,112	1,200
European Satellites .....	215	456	615	500
Communist China .....	550	1,064	962	500
Total Bloc .....	2,342	4,823	3,689	2,200
Free World .....	3,278	1,587	1,441	1,200
Grand Total .....	5,620	6,410	5,130	3,400

\* While the figures for 1963 are estimates they are now supported by a considerable body of evidence and appear to be reasonably accurate.

As of mid-October, Cuba had already contracted for a minimum of 465,000 tons of sugar for delivery during 1964 to Iran, Italy, Japan, the Middle East, Sweden, Switzerland, and the UK. In addition, Cuba has a long term agreement with Morocco calling for the delivery of 300,000 tons during 1964; however, the status of this commitment is now in doubt due to the recent break in relations between the two countries.

Exports to the free world can be expected to sell at about 10 cents per pound if current world future prices are taken as a guide.

### WORLD SUGAR FUTURE PRICES

*as of Selected Dates in 1963*

1964 CONTRACT	2 AUG	5 SEPT	3 OCT	12 NOV
January .....	6.79	6.6	8.8	11.90
March .....	6.10	7.45	9.12	10.72
July .....	6.00	6.35	9.10	10.35
September .....	5.82	6.10	8.88	9.82

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At this price, one million tons would be worth \$220 million. There is no evidence that Bloc prices will be increased above the 6 cents per pound set in mid-1963; two million tons sold to the Bloc at this price would be valued at about \$265 million. Therefore, under these assumptions, Cuban export earnings from sugar alone would amount to \$485 million compared to about \$400 million during 1963. Total earnings from exports during 1964 might thus be \$530 to 580 million compared to the \$450 to \$500 million estimated for 1963.

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